U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

MAR 25 1988

REPLY TO ATTN OF: WD-134

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Kenneth D. Brooks, Administrator
Division of Environment
Idaho Department of Health and Welfare
Statehouse
Boise, Idaho 83720

Re: NPDES Permit No. ID-002540-2
Cyprus Thompson Creek

Dear Mr. Brooks:

Enclosed for your use in completing a certification action is a copy of the National Pollutant Discharge Elimination System (NPDES) permit which EPA proposes to reissue.

Comments received on the draft permit (copy enclosed) have not resulted in any permit changes. However, the limitations for lead and zinc in the proposed final permit (Part I.A.1.) have been changed due to a recalculation of the water quality-based limitations, and Parts II, III and IV have been modified to incorporate regulatory language required by the Water Quality Act of 1987. We would appreciate receiving the State Certification at your earliest convenience.

Sincerely,

Harold

Harold E. Geren, Chief
Water Permits and Compliance Branch

Enclosures

cc: Idaho Department of Health and Welfare-DOE, Pocatello

We are also incorporating language in the final permit (Part I A.1.) that will allow in-stream background levels to be substituted as effluent limitations if the Company provides data that verifies background levels for any parameter exceeding water quality based criteria. In any case, however, ~~the~~ allowable discharge ~~of~~ ~~effluent guidelines limitations~~

2 of 3

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Specific Limitations and Monitoring Requirements.

1. During the period beginning on the effective date of this permit, and lasting until the expiration date, discharges from outfalls #001 and #002 shall be limited and monitored by the permittee as specified below:

Effluent Parameter	Effluent Limitation Daily Avg. (mg/l)	Effluent Limitation Daily Max. (mg/l)	Monitoring Requirements Frequency	Monitoring Requirements Sample Type
Flow	---	---	Daily	----
Total Suspended Solids (TSS)	20.0	30.0	Weekly	Grab
Arsenic	---	0.490	Monthly	Grab
Cadmium	---	0.0053	Monthly	Grab
Lead	---	0.017	Monthly	Grab
Mercury	---	non-detectable	Monthly	Grab
Copper	---	0.0245	Monthly	Grab
Zinc	---	0.165	Monthly	Grab

(NOTE: All metals shall be analyzed as total recoverable.)

a. The pH shall not be less than 6.0 standard units, nor greater than 9.0 standard units, and shall be monitored weekly by grab samples.

b. There shall be no discharge of floating solids or visible foam in other than trace amounts.

c. Samples taken in compliance with the monitoring requirements specified above shall be taken in the effluent stream below the settling basins.

2. During the period beginning on the effective date of this permit, and lasting until the expiration date, discharges from outfall #003 is authorized. The permittee shall monitor turbidity (above and below the Bruno Creek access road stormwater settling ponds) weekly during February 1 to June 30, and monthly for the other months of the year. This monitoring shall be performed in accordance with requirements of the water quality monitoring program as required by Part I.A.3. below.

3. In addition to the above referenced effluent monitoring requirements, the permittee shall continue to provide for water quality monitoring in accordance with the program agreed upon by the U.S. Forest Service (USFS), Idaho Department of Health and Welfare - Division of Environment (IDHW-DOE) and Cyprus, and such future modifications as may be mutually agreed upon by the parties. Instream monitoring results shall be reported quarterly (in March, June, September and December) to EPA and IDHW-DOE at the address given in Part II.C. below.

Calculations for Water Quality-Based Limitations for Cyprus ID-002540-2

Parameter: Arsenic

Acute Wasteload Allocation (WLA,acute) = 0.72 mg/l
Chronic Wasteload Allocation (WLA,chronic) = 0.91 mg/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/m

Back calculate the long term average (LTA)
that will meet both of the above WLAs:

	Acute	Chronic	
est s	0.555	0.555	
est u, 4d	NA	-0.775	
est u, 1d	-1.618	-0.886	
LTA	0.231	0.481	mg/l
Lowest LTA =		0.231	mg/l

Using the lowest LTA and CV from above, derive the
Maximum Daily and Monthly Average permit limits

	Percentile Basis 95th %'ile	99th %'ile	
est s2	0.307	0.307	
est u	-1.618	-1.618	
Maximum Daily =	0.494	0.720	mg/l
Monthly n =	1.000		
est s2,n	0.307	0.307	
est u,n	-1.618	-1.618	
Monthly Average =	0.494	0.720	mg/l

Draft permit
0.49 mg/l

2/07

Parameter: Cadmium

Acute Wasteload Allocation (WLA,acute) = 7.80 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 5.30 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/m

Back calculate the long term average (LTA)
that will meet both of the above WLAs:

	Acute	Chronic	
est s	0.555	0.555	
est u, 4d	NA	0.985	
est u, 1d	0.764	0.874	
LTA	2.504	2.795	ug/l
Lowest LTA =		2.504	ug/l

Using the lowest LTA and CV from above, derive the
Maximum Daily and Monthly Average permit limits

	Percentile Basis 95th %'ile	99th %'ile	
est s2	0.307	0.307	
est u	0.764	0.764	
Maximum Daily =	5.347	7.800	ug/l
	≤.0053 mg/l		
Monthly n =	1.000		
est s2,n	0.307	0.307	
est u,n	0.764	0.764	
Monthly Average =	5.347	7.800	ug/l

Draft permit
.0053 mg/l

3/6/87

Parameter: Lead

Acute Wasteload Allocation (WLA,acute) = 164.00 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 15.00 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/m

Back calculate the long term average (LTA)
that will meet both of the above WLAs:

	Acute	Chronic
est s	0.555	0.555
est u, 4d	NA	2.025
est u, 1d	3.810	1.915
LTA	52.658	7.912 ug/l

Lowest LTA = 7.912 ug/l

Using the lowest LTA and CV from above, derive the
Maximum Daily and Monthly Average permit limits

	Percentile Basis 95th %'ile	99th %'ile
est s2	0.307	0.307
est u	1.915	1.915
Maximum Daily =	16.890	24.640 ug/l
	=.01689 = .017 mg/l	
Monthly n =	1.000	
est s2,n	0.307	0.307
est u,n	1.915	1.915
Monthly Average =	16.890	24.640 ug/l

Draft permit = .015 mg/l
proposed final permit = .017 mg/l

4/87

Parameter: Mercury

Acute Wasteload Allocation (WLA,acute) = 4.80 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 0.06 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/m

Back calculate the long term average (LTA)
that will meet both of the above WLAs:

	Acute	Chronic	
est s	0.555	0.555	
est u_4 4d	NA	-3.548	
est u_1 1d	0.279	-3.658	
LTA	1.541	0.030	ug/l

Lowest LTA = 0.030 ug/l

Using the lowest LTA and CV from above, derive the
Maximum Daily and Monthly Average permit limits

	Percentile Basis 95th %'ile	99th %'ile	
est s2	0.307	0.307	
est u	-3.658	-3.658	
Maximum Daily =	0.064	0.094	ug/l
Monthly n =	1.000		
est s2,n	0.307	0.307	
est u,n	-3.658	-3.658	
Monthly Average =	0.064	0.094	ug/l

Draft permit non-detectable

5/17

Parameter: Copper

Acute Wasteload Allocation (WLA,acute) = 36.00 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 57.60 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/m

Back calculate the long term average (LTA)
that will meet both of the above WLAs:

	Acute	Chronic
est s	0.555	0.555
est u, 4d	NA	3.371
est u, 1d	2.294	3.260
LTA	11.559	30.380 ug/l

Lowest LTA = 11.559 ug/l

Using the lowest LTA and CV from above, derive the
Maximum Daily and Monthly Average permit limits

	Percentile Basis 95th %'ile	99th %'ile
est ≤ 2	0.307	0.307
est u	2.294	2.294
Maximum Daily =	24.678	36.000 ug/l
	= .024678 mg/l	
Monthly n =	1.000	
est $\leq 2,n$	0.307	0.307
est u,n	2.294	2.294
Monthly Average =	24.678	36.000 ug/l

Draft permit
.0245 mg/l

6/7

Parameter: Zinc

Acute Wasteload Allocation (WLA,acute) = 240.00 ug/l
Chronic Wasteload Allocation (WLA,chronic) = 528.00 ug/l
Coefficient of variation (CV) of effluent = 0.60
Monthly sampling frequency required in permit = 1.00 samples/m

Back calculate the long term average (LTA)
that will meet both of the above WLAs:

	Acute	Chronic	
est s	0.555	0.555	
est u_4 4d	NA	5.586	
est u_1 1d	4.191	5.476	
LTA	77.060	278.485	ug/l

Lowest LTA = 77.060 ug/l

Using the lowest LTA and CV from above, derive the
Maximum Daily and Monthly Average permit limits

	Percentile Basis 95th %'ile	99th %'ile	
est s2	0.307	0.307	
est u	4.191	4.191	
Maximum Daily =	164.517	240.000	ug/l
Monthly n =	1.000		
est s2,n	0.307	0.307	
est u,n	4.191	4.191	
Monthly Average =	164.517	240.000	ug/l

Draft Permit = .163

proposed final permit = ~~.163~~ .165 mg/l

7/7